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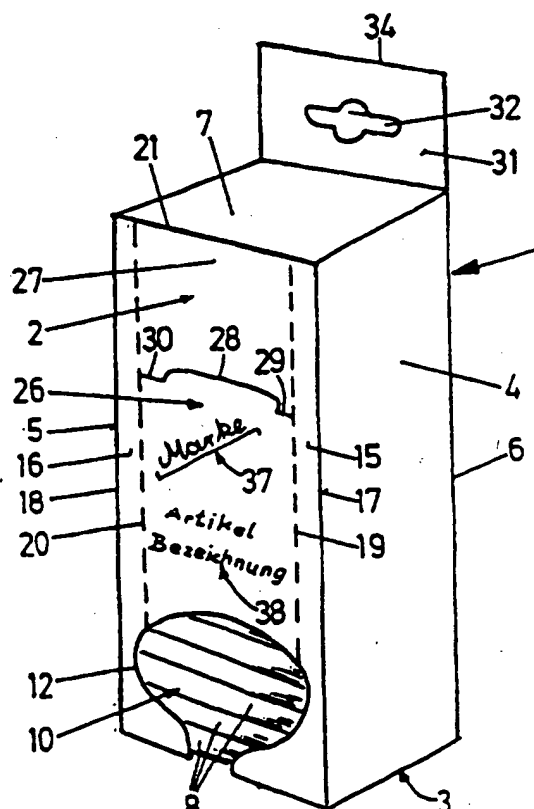
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<p>(21) International Application Number: PCT/US96/18944</p> <p>(22) International Filing Date: 27 November 1996 (27.11.96)</p> <p>(30) Priority Data: 295 19 931.8 15 December 1995 (15.12.95) DE</p> <p>(71) Applicant (for all designated States except US): THE PROCTER & GAMBLE COMPANY [US/US]; One Procter & Gamble Plaza, Cincinnati, OH 45202 (US).</p> <p>(72) Inventor; and (75) Inventor/Applicant (for US only): ERBE, Helmut, Norbert [DE/DE]; Liebermannring 5, D-67549 Worms (DE).</p> <p>(74) Agents: REED, T., David et al.; The Procter & Gamble Company, 5299 Spring Grove Avenue, Cincinnati, OH 45217 (US).</p>		<p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BI, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GI, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, P, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, U, UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, S, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, T, TM), European patent (AT, BE, CH, DE, DK, ES, FI, F, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TC)</p> <p>Published With international search report.</p>

(54) Title: DISPLAY BOX FOR HOLDING INDIVIDUAL ARTICLES

(57) Abstract

Display box made of cardboard or the like for holding a plurality of individual articles, in particular individually packaged hygiene products such as sanitary towels (8), disposable nappies or the like, with a tear-open removal orifice (9), in one of the cardboard walls (2) which is formed by attenuated lines (12, 19, 20) in this cardboard wall (2), characterised in that the removal orifice (9) is formed in two parts and has a first partial orifice (10) which is dimensioned for the removal of individual or few individual articles (8) and is arranged in the marginal region of the corresponding cardboard wall (2), as well as a second partial orifice (14) adjoining the first partial orifice (10) and substantially including the remainder of the cardboard wall (2).



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DISPLAY BOX FOR HOLDING INDIVIDUAL ARTICLES

The invention relates to a display box made of cardboard or the like for holding a plurality of individual articles, in particular individually packaged hygiene products such as sanitary towels, disposable nappies, tissues, moist tissues or the like, with a tear-open removal orifice in one of the box walls which is formed by attenuated lines in this box wall.

When individual articles are sold in the retail trade, at petrol stations, on camp sites, etc., the boxes used as packaging to deliver the product are generally used at the same time as display boxes for offering the product in the respective shop premises. This avoids the labour-intensive transfer of the product from the packaging onto the display shelf. It is merely necessary to open a removal orifice on the display box and to put it on a corresponding display shelf or suspend it on a display stand in a single operation. A wall of the display box which is limited by attenuated lines and can be completely severed is usually used as a removal orifice so the display box can be placed on a display shelf with its upper sides open. The possibilities for positioning this type of display box are therefore very limited. A further drawback is that the entire content of the packaging is completely exposed and the impression of untidiness in the display box can often be given, particularly in the case of a plurality of smaller individual articles. This is not beneficial to sales.

The object of the invention is to design a display box of the type mentioned at the outset such that its removal orifice can easily be adapted to different conditions and positions of sale.

This object is achieved in that the removal orifice is formed in two parts and has a first and second partial orifice. The first partial orifice is dimensioned for removal of individual or few individual articles and is arranged in the marginal region of the corresponding box wall. The second partial orifice adjoins the first partial orifice and essentially includes the remainder of the box wall.

Owing to this design of the removal orifice, it is possible, if desired, to form only a very small removal orifice from which individual or few individual articles can be removed simultaneously in each case. With this configuration, therefore the display box acts virtually as a dispenser and is preferably suspended on a display stand or placed on a counter in such a way that the small partial opening is arranged in the bottom region of the vertical box wall. If an individual article is now removed from the display box, the articles stacked thereon slide down so an individual article invariably lies in the region of the small removal orifice until the display box is empty.

If the entire content of the box is to be visible from the exterior for reasons of sales' tactics, both partial orifices can be opened. The display box will preferably be laid on a display shelf, the large removal orifice being arranged in the horizontal, upwardly directed box wall.

The display box according to the invention is basically also suitable for sale as a whole which is to be acquired by the end user who will then use the box at home with one of the above described methods of opening.

According to a development of the subject of the invention, the first (small) partial opening is formed by a preferably droplet-shaped tear-out flap in the marginal region of the corresponding side wall of the box. This shaping is aesthetically attractive and, for the preferred embodiment in which the region of the tip of the droplet of this partial opening extends into the adjacent side wall, the individual article arranged there can be grasped particularly well by the fingers. This simplifies removal thereof from the display box.

Whereas the tear-out flap forming the first (small) partial opening is usually removed completely, the second partial opening is formed in a preferred embodiment by two attenuated lines adjoining this tear-out flap and extending substantially parallel in each case to the opposite respective marginal edges of the box wall. These attenuated lines surround a hinged flap which can be torn open but is permanently connected to the display box and can form a vertical display area when the display box lies flat. This makes the display box much more noticeable.

Folding back of the hinged flap is simplified by the cut preferably provided transversely over a portion of the width of the flap. It is also advantageous to the aesthetic design of the display area.

The folded-up position of the hinged flap is secured by the cut lines which are also provided, project inwardly in the form of a nose and adjoin the attenuated lines of the hinged flap.

According to a further preferred embodiment of the subject of the invention, a suspension flap is provided on the display box. This makes it quite easy to suspend the box.

Other features, details and advantages of the invention can be inferred from the following description in which an embodiment of the subject of the invention is described in detail with reference to the accompanying drawings.

Figure 1 is a perspective view of a display box in a vertical state.

Figure 2 is a perspective view of the same display box in a flat state.

Figure 3 is a plan view of the cardboard blank for the display box according to figures 1 and 2.

As shown in figures 1 and 2, a display box 1 which has the basic shape of an elongate cuboid and is produced from an integral cardboard blank 1' (figure 3) has a front wall 2, a base 3, two side walls 4,5, a back wall 6 and a top wall 7. The display box 1 holds a plurality of individual articles in the form of individually packaged sanitary towels 8 which are arranged in a regular stack in the display box 1.

A tear-open removal orifice designated in its entirety by 9 is provided in the front wall 2, as shown in its completely open state in figure 2. This removal orifice 9 is designed in two parts and has a first partial opening 10 (figure 1). This partial opening 10 is formed by removing a tear-out flap 11 (figure 3) which is substantially droplet-shaped and is defined by a correspondingly

shaped perforated line 12 closed in on itself. The tear-out flap 11 is arranged in the bottom marginal region of the front wall 2 so as to penetrate into the adjacent base 3 of the display box 1 in the region of the rounded droplet tip. As shown in figure 3, a small circular punched hole 13 is provided in the region of this droplet tip and can be penetrated by a finger, considerably simplifying severance of the tear-out flap 11.

As also shown in the accompanying drawings, the removal orifice 9 has a second partial orifice 14 (figure 2) which adjoins the first partial orifice 10 and substantially includes the remainder of the front wall 2 - apart from the two lateral marginal webs 15, 16. To form the second partial orifice 14, two perforated lines 19, 20 each extending parallel to the opposing marginal edges 17, 18 are provided in the front wall 2 and extend linearly from the perforated line 12 to just in front of the opposing transverse edge 21 of the front wall 2. The remaining length to the transverse edge 21 is bridged in each case by a short cut line 22,23 forming a respective inwardly directed nose-shaped projection 24, 25.

The two perforated lines 19, 20 with their cut lines 22, 23 define a hinged flap which is designated in its entirety by 26 and remains connected to the display box 1 by its end 27 resting on the transverse edge 21.

Roughly centrally with respect to the length of the hinged flap 26 there is also provided a cut 28 which extends over part of the width TB of the hinged flap 26, is curved convexly toward the transverse edge 21 and at whose two ends short perforated pieces 29,30 adjoin the two perforated lines 19,20.

A suspension flap 31 adjoins as an extension of the back wall 6 and projects beyond the top wall 7. The suspension flap 31 has a central slot-shaped suspension orifice 32 which is enlarged into a circle in its centre.

The above-described parts of the display box 1 can be seen again and are provided with corresponding reference numerals in the cardboard blank 1', for the display box 1 shown in figure 3. It should merely be added that the base 3 is a known "automatic base" formed from individual interlocking flaps 3.1, 3.2, 3.3, and 3.4. The base 3 is automatically fixed in a closed position using adhesive in a known manner owing to the illustrated design.

An adhesive flap 33 which is stuck to the opposing side wall 4 extends over the length of the back wall 6.

The top wall 7 is formed by a conventional tuck-in flap 7.1 placed against the front wall 2 and supporting flaps 7.2 and 7.3 beneath them and resting on the side walls 4 and 5, the two notches 7.4 allowing the tuck-in flap 7.1 to engage so it cannot be opened again.

The suspension flap 31 is designed as a folding flap and is folded on itself along the fold line 24. To form the suspension orifice 32, two corresponding punched orifices 35,36 therefore have to be introduced into the suspension flap 31

As shown in figures 1 and 2, the display box 1 can basically be used for selling sanitary towels 8 in two different positions.

In the position shown in figure 1, the display box 1 stands up-ended on its base 3 or is suspended by the suspension flap 31. Only the tear-out flap 11 is severed to form the first partial orifice 10. Therefore, only the first partial orifice 10 is opened and arranged in the bottom region of the vertical front wall 2. The display box 1 is therefore used in the manner of a dispenser in this case and the sanitary towels 8 located therein can be removed in succession and can slide down from the top. As shown in figure 1, a brand name 37 and a description of the article 38 concerning the product offered in the display box 1 can be printed on the hinged flap 26 which can be read well owing to the vertical position of the front wall 2. This promotes sales.

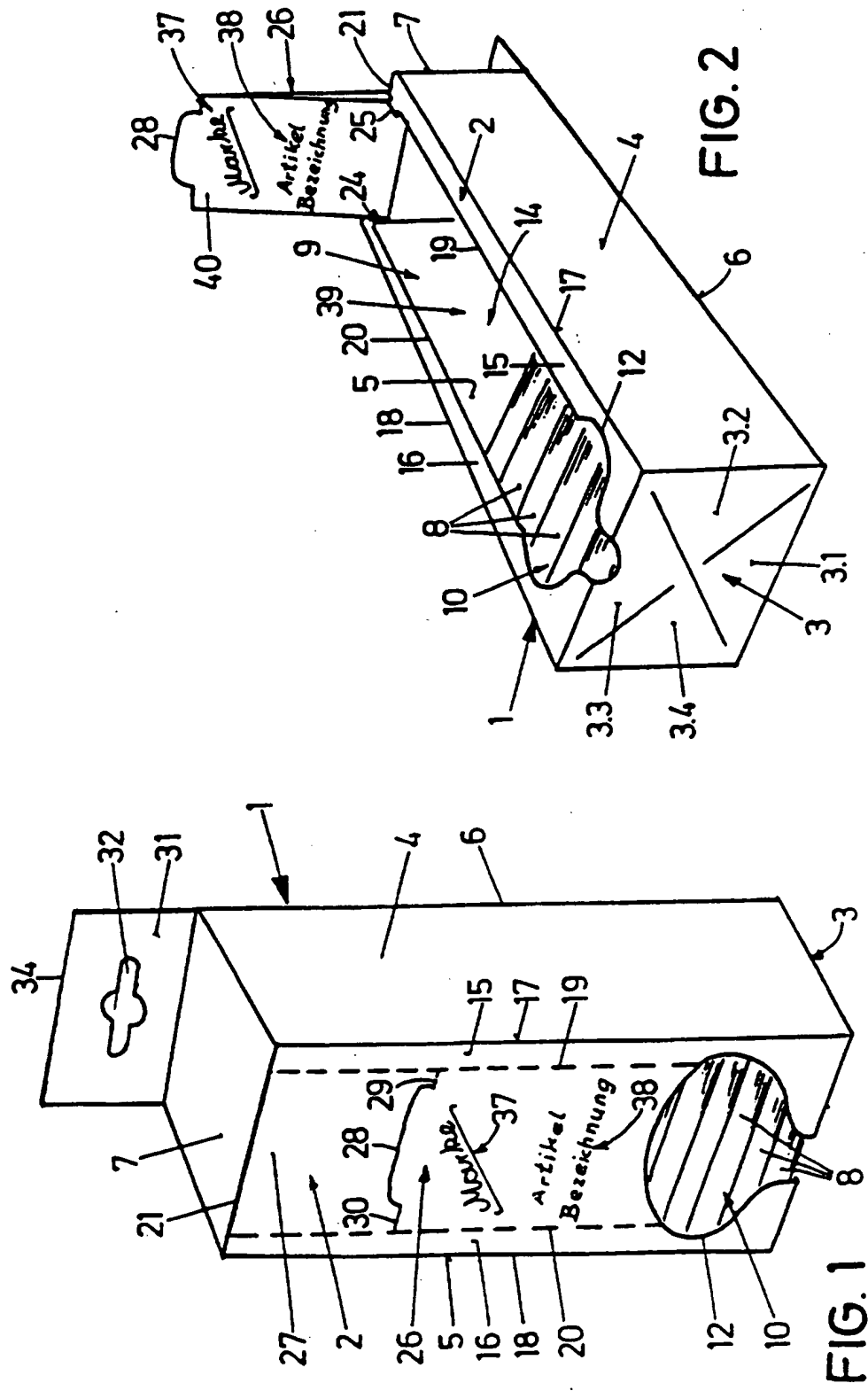
In the position shown in figure 2, the display box 1 is used in the flat state, i.e. such that it rests on its back wall 6. The front wall 2 is therefore orientated horizontally and is directed upwardly. The removal orifice 9 is completely opened by removing the tear-out flap 11 and severing the perforated lines 19,20 so virtually the entire interior 39 of the display box 1 is open and accessible. The hinged flap 26 formed by severing the perforated lines 19, 20 is folded on itself along the perforated pieces 29,30

and the cut 28 and is positioned vertically upwardly so it is in a plane with the vertical top wall 7. The front half 40 of the hinged flap 24 is placed beneath the two projections 24,25 so the position of the hinged flap 26 shown in figure 2 is reliably locked. The brand name 37 and description of the article 38 can again be read well from the front in this position. The upper end of the positioned hinged flap 26 is formed by the arcuate cut 28 leading to a clean edge at the upper end of the folded hinged flap 26.

What is claimed is:

1. Display box made of cardboard or the like for holding a plurality of individual articles, in particular individually packaged hygiene products such as sanitary towels (8), disposable nappies or the like, with a tear-open removal orifice (9), in one of the cardboard walls (2) which is formed by attenuated lines (12, 19, 20) in this cardboard wall (2), characterised in that the removal orifice (9) is formed in two parts and has a first partial orifice (10) which is dimensioned for the removal of individual or few individual articles (8) and is arranged in the marginal region of the corresponding cardboard wall (2), as well as a second partial orifice (14) adjoining the first partial orifice (10) and substantially including the remainder of the cardboard wall (2).
2. Display box according to claim 1, characterised in that the first partial orifice (10) is formed by a tear-out flap (11) in the marginal region in the cardboard wall (2) comprising the removal orifice (9).
3. Display box according to claim 2, characterised in that the tear-out flap (11) is substantially droplet-shaped, the first partial orifice (10) penetrating into the adjacent cardboard wall (3) with the region of the droplet tip.
4. Display box according to claim 2 or 3, characterised in that the second partial orifice (14) is formed by two attenuated lines (19,20) which adjoin the tear-out flap (11), each extend substantially parallel to the opposing marginal edges (17,18) of the cardboard wall (2) and surround a tear-open hinged flap (26) permanently connected to the display box.
5. Display box according to claim 4, characterised in that substantially centrally with respect to the length of the hinged flap (26) there is provided a preferably curved cut (28) extending between the two attenuating lines (19, 20) transversely thereto over a portion of the width (TB) of the hinged flap (26).

6. Display box according to claim 4 or 5, characterised in that the attenuating lines (19, 20) of the hinged flap (26) each end in a short cut line (22, 23) projecting inwardly in the form of a nose.
7. Display box according to one of claims 1 to 6, characterised in that a suspension flap (31) is applied to a cardboard wall (6) remote from the cardboard wall (2) with the removal orifice (9).
8. Display box according to claim 7, characterised in that the display box can be positioned in a state in which it is suspended by the suspension flap (31) and only the first partial orifice (10) is opened and is arranged in the bottom region of the vertical cardboard wall (2) comprising it.
9. Display box according to one of claims 1 to 7, characterised in that the display box can be positioned in an up-ended state in which only the first partial orifice (10) is opened and is arranged in the bottom region of the vertical cardboard wall (2) comprising it.
10. Display box according to one of claims 1 to 7, characterised in that the display box can be positioned in a lying state in which the two partial orifices (10,14) in the horizontal, upwardly directed cardboard wall (2) are open and the hinged flap (26) forming the second partial opening (14) can be folded back on itself and is placed vertically at the rear end of the removal orifice (9).



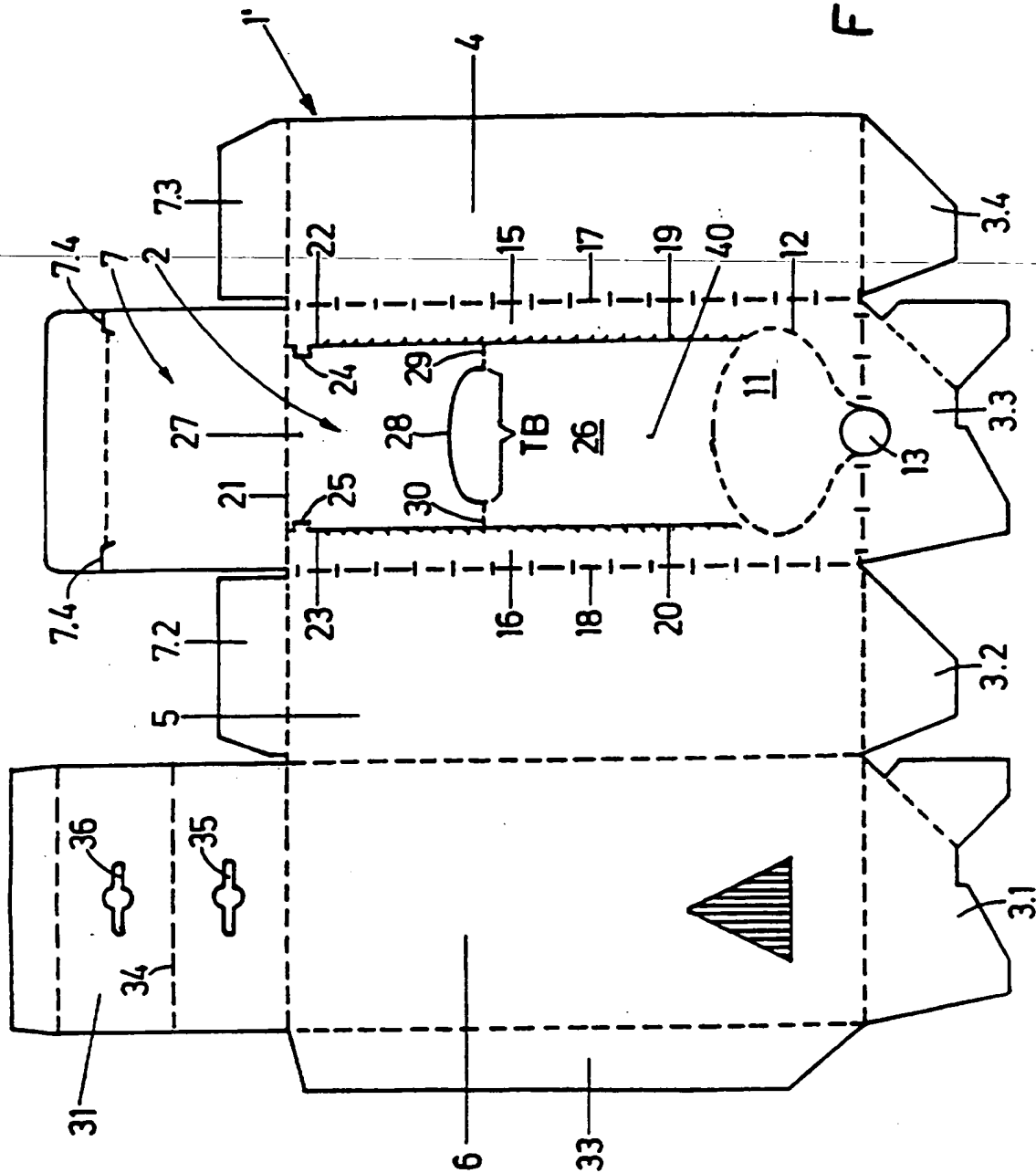


FIG. 3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US96/18944

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : B65D 5/54

US CL : 229/125, 240, 242; 206/ 45.29, 494

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 229/122.1, 125, 240, 242, 243; 206/ 45.28, 45.29, 45.30, 494

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 1,161,172 A (FOYLE ET AL) 13 August 1969, page 3, lines 125-130 and page 4, lines 1-80.	1
A	US DES. 118,010 A (BRODERICK) 12 December 1939.	1-5
A	US 1,472,953 A (BAMBER) 06 November 1923.	1-5
A	US 5,050,742 A (MUCKENFUHS) 24 September 1991.	1-5
A	US 5,163,558 A (PALUMBO ET AL) 17 November 1992.	1-5
A	IT 652,156 A (PONZETTO) 07 May 1957.	1-5
A	CA 662,873 A (PETERSEN) 14 May 1963.	1-5

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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Date of the actual completion of the international search

25 FEBRUARY 1997

Date of mailing of the international search report

18 MAR 1997

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US96/18944

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☒ Claims Nos.: 6-10
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.